DOCUMENT RESUME

ED 347 702 EC 212 268

TITLE Extended School Year Programs for Handicapped Children: Literature Review Report.
INSTITUTION Macy Research Associates, Wills Point, TX.
SPONS AGENCY Education Service Center Region X, Richardson, TX. Dept. of Special Education.
PUB DATE Aug 88
NOTE 26p.
PUB TYPE Information Analyses (070)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Cognitive Measurement; *Delivery Systems; *Disabilities; *Educational Diagnosis; Elementary Secondary Education; Eligibility; *Extended School Year; Generalization; Individual Differences; Individualized Education Programs; Maintenance; Student Needs

ABSTRACT

A review of available literature on extended school year (ESY) programming (1972-1988) is structured around an exploration of 11 questions developed by special education administrative personnel. Issues addressed include how regression/recoupment (R/R) is measured; the related concepts of generalization and maintenance; how R/R is related to handicap, severity, age, and environmental factors; who should receive ESY services and under what conditions; reduction of subjectivity in determining ESY eligibility; and alternative programming approaches. Relevant studies are cited in a discussion of each issue, with brief answers to the initial question summarized at the end of each section. Among conclusions drawn are the following: R/R is best viewed as a highly individualized phenomenon. Factors that could indicate a need for ESY include handicap severity, measured regression in cognitively learned material, degree of potential for generalization and maintenance, and medical conditions. Direct, ongoing assessment for ESY eligibility should focus on individualized education program (IEP) objectives, use a variety of sources and methods, and occur frequently. ESY programming should involve modification of regular school year instruction in order to maximize the potential for generalization and maintenance during the summer interruption of instruction. (JW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED347702

EXTENDED SCHOOL YEAR PROGRAMS FOR HANDICAPPED CHILDREN LITERATURE REVIEW REPORT

Department of Special Education

Education Service Center

Region X

Richardson, Texas

AUGUST 1988

Prepared by Macy Research Associates
Wills Point, Texas

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Joe Farmer
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Copyrighted material. Department of Special Education, Education Service Center, Region X, Richardson, Texas, 1988.

BEST COPY AVAILABLE

SUMMARY OF QUESTIONS/CONCERNS CITED BY KEY PEOPLE

In May 1988 five local unit special education directors and two intermediate unit management pesonnel were interviewed to determine their major issues and concerns regarding extended school year programming for handicapped children. The following list of questions is a synthesis of the ideas/issues expressed by these personnel.

Group 1

1. HOW DO WE MEASURE REGRESSION/RECOUPMENT?

2. WHAT REGRESSION/RECOUPMENT TAKES PLACE? WHO OR WHAT IS MOST SUSCEPTIBLE?

Group 2

3. HOW IS R/R RELATED TO HANDICAP, SEVERITY, AND AGE?

4. HOW IS RECOUPMENT RELATED TO REGRESSION? DOES THIS RELATIONSHIP DEPEND ON HANDICAP, SEVERITY, AND/OR AGE?

5. IS R/R SAME FOR HANDICAPPED CHILD AS FOR REGULAR CHILD?

6. DO FAMILY/ENVIRONMENT FACTORS AFFECT R/R?

Group 3

7. WHO SHOULD BE CANDIDATES FOR EXTENDED SCHOOL YEAR SERVICE? WHO SHOULD RECEIVE ESY SERVICE?

8. UNDER WHAT CONDITIONS IS ESY SERVICE NEEDED?

Group 4

9. HOW CAN WE MAKE THE ARD PROCESS LESS SUBJECTIVE? (in determining ESY eligibility)

10. WHAT PROCEDURES CAN BE USED BY ARD PERSONNEL TO MAKE ESY SERVICE DETERMINATION UNDERSTANDABLE AND STRAIGHT FORWARD?

11. WHAT ALTERNATIVE PROGRAMMATIC APPROACHES ARE VALID FOR ESY SERVICE?

SUMMARY OF LITERATURE SEARCH PROCEDURES

Initial search activity included two independent computerized searches of the ERIC data base. One conducted by reference personnel at the Dallas Public Library, and the second conducted by personnel at the ERIC Clearinghouse for the Handicapped in Reston, VA.

Both searches identified a total of 63 possible titles, but after review of abstracts, only 25 articles/papers were judged sufficiently relevant to the focus of the review questions. A number of papers dealt with past litigation surrounding extended school year programming, but these were basically excluded from the review. However, those papers that dealt with educational bases for ESY (extended school year) were generally included.

The publication dates of papers selected for final review ranged from 1972 to 1988. In order to try to include the most recent papers published, the table of contents of current issues of 8-10 journals were also consulted to identify relevant titles. None were identified (the process was limited by availability of current issues at the library; probably 60-70% of the desired issues were available).

Papers selected for review were ordered chronologically, to permit some understanding of the evolution of research and thinking regarding ESY programming, and significant outcomes/points were highlighted within each paper. References in these papers also identified a few additional papers for inclusion in the review, and two more relevant papers were identified thru telephone discussion with a previously identified author. Following this, an annotated bibliography was constructed to provide a quick synthesis of the information in the papers. The final bibliography contains a total of 26 primary sources and 12 secondary sources

The last step in the literature review was the development of a narrative discussion of available information for each of the questions identified initially by the sample of special education personnel. The narrative discussion was written the format of the traditional literature review, but a summary synthesis was developed for each question in order to provide practical answers.

ANSWERS TO KEY QUESTIONS/CONCERNS

ABOUT EXTENDED SCHOOL YEAR FOR HANDICAPPED CHILDREN

The following discusses outcomes from a review of relevant literature regarding extended school year services for handicapped children. Completeness and finality of the discussion is limited to the constraints of the review process, as described previously.

1. HOW DO WE MEASURE REGRESSION/RECOUPMENT?

Any attempt at answering this question must first consider the meaning of the concepts of regression and recoupment. This is somewhat of a problem, since these concepts are largely products (at least in terms of their current popularity and emphasis) of legal proceedings, which may be reasonable and logically sound, but which fail to yield well-developed operational definitions.

With one major exception, the literature provides little evidence of development of operational definitions for regression/recoupment, but a few writers have flirted with the issue. Browder and Lentz (1985) defined skill regression as "the failure to maintain previous performance levels across time," and Larsen, Goodman, & Glean (1981) and McMahon (1983) spoke of an regression/recoupment disability. Browder, Lentz, Knoster, and Wilansky (in press) recommended that regression be conceptualized as "the lack of maintenance."

For the most part, the review found no attempts at defining recoupment. Almost all workers were content with an implicit understanding of recoupment, likely meaning "to get back that which has been lost." However, Tilley, Cox, and Stayrook (1986) defined recoupment as the gain in skills occurring in the fall of the school year. Presumably, these authors meant the gain up to but not exceeding achievement levels at the end of the previous school year.

Major research conducted by the Seattle public schools (Tilley, Cox, and Stayrook, 1986) provided the best information to date about the regression/recoupment phenomenon. Researchers compared regression/recoupment of both regular and special education students, and the study randomly sampled across the range of grade levels and handicapping conditions.

Tilley, Cox, and Stayrook (1986) used items from the California Achievement Tests for regular students, and CAT items as well as a variety of measurements for special education students. For the latter group, tests addressed specific IEP objectives. The outcome measure was the percent of items answered correctly, and researchers operationally defined

regression as the difference between the percent of items correct in June and the percent correct in September.

Larsen et al (1981) may have suggested a basis for an operational definition of regression/recoupment disability when they noted that, for the vast majority of children, the regression/recoupment cycle is inconsequential to the overall rate of learning. The ratio of regression/recoupment to overall learning rate could possibly constitute a basis for an operational measurement of regression/recoupment disability, but considerable research and development would be required.

An important part of understanding regression/recoupment would seem to be the distinction between generalization and maintenance. Research by Koegel and Rincover (1977) demonstrated that loss of skill performance over time (i.e., regression) could be due to either failure to maintain performance or to failure to generalize acquired skills to new settings. As noted by Larsen et al (1981), many students, especially severely/profoundly handicapped, do not automatically generalize acquired skills to environmental conditions outside those under which initial learning took place. Browder, Lentz, Knoster, and Wilansky (in press) also discussed regression/recoupment in the context of maintenance or "cross time generalization." Accordingly, measurement of regression/recoupment, as well as operational definitions of regression/recoupment disability should be sensitive to the distinction between generalization and maintenance.

The literature suggests several preferred means for measuring regression/recoupment, and unfortunately, these are not necessarily easily done (in spite of opinions of selected writers), nor are these typically present in many special education programs. Browder and Lentz (1985) recommended that the methods of applied behavior analysis be used in assessment of performance by SPH students on IEP objectives across time, and Kabler, Stephens, and Rinaldi (1983) recommended application of the methods of single-subject experiments in monitoring progress and building a data base for future ESY decisions. Tryon (1982) reported a simplified method for time-series analysis, but the method still requires considerable quantitative expertise, even though it could have significant application in measurement of regression/recoupment. Although there are helpful resources for designing and conducting single-subject experiments (Kratochwill, 1978), these methods are likely beyond the capability or energy of most field workers.

It seems clear that the measurement of regression/recoupment will require thorough and detailed data collection. Work conducted in Seattle (Tilley et al, 1986) supports this, as these researchers used a variety of measurement devices to appraise progress on individual IEP objectives, including standardized tests and teacher-designed test items, collected monthly over a six-month period.

In the method of measuring regression/recoupment reported by Tilley et al (1986), the percent of test items answered correctly was the outcome score for each student. Regression was the percent correct in September minus the percent correct in June. Recoupment was the percent correct in November minus the percent correct in September.

Browder et al (in press) called for direct, ongoing assessment of measurable IEP objectives and recommended parent and teacher reports as well in several key areas (regression/recoupment history, current predictors of regression, current instructional strategies, maintenance strategies, family circumstances, and recent behavioral/medical problems). Larsen et al (1981) called for "careful and detailed" records of progress for each student and recommended that assessment data collected for determination of ESY eligibility be part of the comprehensive data system of the school program, rather than collected separately just for ESY determination.

Larsen et al also recommended the use of the "position 2" or "position 3" assessment systems reported by Sailor and Haring (1981). Also, the Functional Skills Screening Inventory (Becker, Schur, Paoletti-Schelp, and Hammer, 1985) would likely be directly applicable in regression/recoupment measurement, or perhaps other measures emphasizing self-sufficiency or functional skills would be applicable as well. Bahling (1981) used the Verna Hart Checklist in evaluating student progress in her study of an ESY program.

Edgar, Spence, and Kenowitz (1977) advocated the adoption of a four-point schedule for collecting data about student progress and ESY programming: 1) at the end of regular school year, 2) at the end of the summer program, 3) at the beginning of the subsequent school year, and 4) at the end of the subsequent school year. These writers felt that student progress at the end of the subsequent year was critical to assessing the value of an ESY program.

Regardless of preferred or recommended procedures for measuring regression/recoupment, reports from summer programs reveals a wide variety of procedures, with little parallel to recommendations cited previously. Edgar et al (1977) surveyed 18 extended school year programs in Washington State and found a lack of a common and consistent method of evaluating student progress. These writers indicated that standardized measurement procedures (presumably tests) were frequently not sensitive to the small increments associated with summer programs.

Kabler et al (1983) indicated that numerous authors have reported gains during summer programs for the full range of handicapping conditions and for all ages, but Kabler et al noted that most reports did not include measurement of student progress at the end of the school year previous to the summer program, nor during the subsequent school year. This is essentially the problem addressed by Edgar et al (1977), in their recommendation

of a four-point data collection schedule, and by others calling for application of single-subject research methods (Browder and Lentz, 1985; Larsen et al 1981). Without a series of measurements embracing the previous and subsequent school years, there really can be no measure of regression/recoupment, since there was no baseline to measure regression and no "futureline" to measure recoupment.

In addition to the extensive research conducted in Seattle, the research literature contained only isolated reports of studies which addressed regression/recoupment. McMahon (1983) collected teacher ratings in 10 areas of self-sufficiency at four points: 1) beginning of the summer program, 2) end of the summer program, 3) start of the subsequent school year, and 4) eight weeks into the subsequent year (administrative difficulties prevented collection of data at the end of the previous school year). Results showed evidence of regression during periods of interrupted service. Work by Handleman and Harris (1984) showed evidence of regression, and that by Sindelar and Rosenberg (1982) showed evidence of regression/recoupment, but both studies involved very small samples in laboratory-type research settings.

The use of teacher ratings and checklists has been fairly common in studies of extended school year programs (Edgar et al, 1977; Spivak and Kosky, 1972; Joiner, Lodato, and Stillman, 1972; Bahling, 1981; McMahon, 1983). In addition to teacher ratings, Browder and Lentz (1985) reported the use of parent judgments in determining ESY eligibility. However, Browder and Lentz (1985) reported that there was no data based evaluation of skill regression in student records reviewed in the study of ESY eligibility, and Browder and Lentz cited the need for clarification of procedures to assess skill regression. In a comparison of ESY students and non-ESY students, Browder et al (in press) found not one instance of direct measurement of regression documented in student folders randomly sampled (N=194) from intermediate unit populations in Pennsylvania.

SO WHAT IS THE ANSWER TO.....

1. How do we measure regression/recoupment?

THE ANSWER IS:

A. The measure cannot be global in nature, but must be sensitive to small changes - it should be individualized and solicit a variety of data sources. It should likely focus on individual IEP objectives.

B. A formalized behavior checklist may be best, and the measurement methods of applied behavior analysis would be suitable in many situations. Teacher ratings may be acceptable, but problems in consistency of ratings across teachers, students, and circumstances make these ratings less desirable.

There is precedent for the use of formal test instruments, and the percent of test items mastered or answered correctly is likely a good "score" to use.

C. Measurement must be serial, i.e., a series of measurements are required. Continuous and ongoing measurement is preferred, and perhaps even essential, but at least three measurement points are required (in a very strict sense). The minimum required data points are:

1) at the end of instruction,
2) at the beginning of subsequent instruction, and
3) at the time of recoupment.

Any loss or reduction from 1) to 2) would give a measure of regression. Identification of recoupment, data point 3), would almost always require several consecutive measurements, since one is not likely to know for sure when recoupment has taken place.

D. Measurement must also include time (days or weeks seem most reasonable). Both time required for regression to occur and for recoupment are needed to determine eligibility. Measurements of regression/recoupment might best be recorded in terms of an individual graph for each child. The vertical axis could plot performance, and the longitudinal axis could plot time. The form of the graph would likely approximate an inverted "bell curve," depending of course on rates of regression/recoupment.

****

2. WHAT REGRESSION/RECOUPMENT TAKES PLACE? WHO OR WHAT IS MOST SUSCEPTIBLE?

Without the research conducted in Seattle and reported by Tilley, Cox, and Stayrook (1986), the basic answer to the above questions would be that we really don't know very much. The Seattle study, however, yielded detailed information relevant to these questions, but before considering this work in depth, it will be helpful to consider outcomes from earlier studies.

Edgar, Spence, and Kenowitz (1977) pointed out that most studies of extended year programs had failed to collect data at the proper times to evaluate the effectiveness of ESY programs, and further, researchers had failed to describe adequately the children and handicapping conditions involved in ESY studies. However, after reviewing data collected by 18 ESY programs in Washington State, Edgar et al concluded that some students do regress during the summer months and that some students in ESY programs do maintain performance levels.

Perhaps a comforting fact is that regular education is pretty much in the same boat as is special education. Richmond (1976) completed an extensive review of literature and concluded that research outcomes about the effectiveness of extended school year operations since the 1930s have been minimal and inconclusive. Kabler, Stephens, and Rinaldi (1983) reported that while there is very little research about ESY and handicapped children, considerable research has been completed with non-handicapped children, but "Research on the effectiveness of summer programming for the non-handicapped is regrettably inconclusive" (p.107).

Even though most regular education teachers and administrators would undoubtedly report that the beginning of each school year is a time of some recoupment for most students, Parsley and Powell (1962) concluded that gains/losses in reading achievement in regular education were confounded with problems in research design and interpretation of statistical significance, and not necessarily due to actual gains/losses. Soar and Soar (1969), on the other hand, concluded that summer gain/losses occur for some regular education students under some conditions. Soar and Soar went on to associate learning style with growth in extended-year programs.

Kabler et al (1983) were more definitive in terms of arithmetic skills and reported that in problem solving and arithmetic fundamentals, research generally indicates that skill regression takes place for regular education students during the summer break. These writers went on to conclude that non-handicapped students experience regression in academic skills during the summer break and that "...the amount of regression appears to vary with the individual students and subject matter" (p. 108). Additionally, a number of early researchers found a correlation between intelligence and retention during summer vacation (Breune, 1928; Breuchner and Distad, 1924; Cook 1942; Schrepel and Laslett, 1936).

In special education, the common complaint by teachers is that students regress during the summer months and that the degree of loss is greater among the more severely handicapped students (Edgar et al, 1977; Larsen, Goodman, and Glean, 1981). While the above position may be nearly an article of faith in special education, Kabler et al (1983) found little justification in their literature review for such a position, Edgar et al (1977) were unable to "find any data in the research literature to document this claim" (p. 443).

Aside from an earlier report that achievement of handicapped children regresses during the summer (Stallings, 1975), a few emerging isolated reports have begun to provide some documentation of regression among selected handicapped children. Most recently, Handleman and Harris (1984) studied four autistic boys, aged 8-10 ten years, in discrimination learning, with and without ongoing review of material, and results showed sampled

students retained information much better with ongoing review. Results also supported the notion that greater handicap severity requires more support for retention.

McMahon (1983) studied 26 ESY students attending a six-week summer program in a private school. Analysis of teacher ratings on ten areas of self-sufficiency showed a pattern of regression after interruption of programming and improvement after continuation of instruction. Time for recoupment was not reported, but McMahon indicated that there were lower maintenance rates in the four areas dealing with interactive skills (impulse control, basic communication, and peer and adult interaction). One might note that this was the only report dealing with areas of self-sufficiency, the focus of legal proceedings surrounding ESY programs.

In a comparative study of discriminant learning between five SPH children and five non-handicapped children, aged 12-18 years, Sindelar and Rosenberg (1982) reported that regression/recoupment was more efficient among the non-handicapped children, and perhaps more importantly, there was wide variability among the SPH children in terms of regression/recoupment. Interestingly, one student failed to recoup learning initially acquired on two of the discriminant tasks. Little research studied the abilities of children to recoup initial learning, and the foregoing suggests that recoupment may not always be possible, although this seems somewhat unreasonable from an intuitive standpoint.

Research conducted in Seattle (Tilley et al, 1986) provided quantitative indicators of regression/recoupment for both regular and special education students. The study found that the standardized test scores (reading and math) of regular students regressed by about four percent (in the percent of test items answered correctly) from June to September. Furthermore, students recouped this loss by about the first of November. Interestingly, most regression was seen to take place in late summer.

Data collected with special education students focused on attainment of IEP objectives and found that mildly handicapped students regressed and recovered at about the same rate as regular education students. Of course, overall test scores of the special students were much lower than those of regular students. Research reported by Tilley et al (1986) further showed that regression/recoupment patterns, rates, and performance levels of seriously behaviorally disabled, hearing impaired, and deaf students were very similar to those of regular education students.

Tilley et al further found that articulation test scores of communication disordered students were basically not subject to regression. However, moderately and severely handicapped students had more pronounced patterns of regression/recoupment. On all types of tests, there was a faster rate of regression for these students, but the rate of recoupment was slower than

regular students for only cognitive test items. Interestingly, on language, self-help, and motor items, the rate of recoupment by moderately/severely handicapped students was similar to that of regular education students.

The above finding that recoupment rates of moderately/severely handicapped students were comparable with regular students on noncognitive items seems incongruent with previous research regarding regression observed with SPH students. The above finding could have been somewhat of an artifact, since test scores of moderately and severely handicapped students were grouped together for statistical analyses, and performance of less severely handicapped students could have diminished the impact of more serious regression among severely handicapped students. At best this is only a partial, and possibly very unsatisfactory, explanation, and there is little basis for further understanding of this outcome, at this point.

Aside from the Seattle work (Tilley et al, 1986), the research literature gives little basis for understanding which students or what skills/achievement are most susceptible to regression/recoupment. Although the focus of legal proceedings has been on the SPH child (actually MR and ED), the classification of SPH is neither necessary nor sufficient for prediction of regression during program interruption (Browder and Lentz, 1985). The review of literature by Browder and Lentz found evidence of regression in cognitive skills of severely retarded persons, in behavior imitation of autistic children, and in greeting skills of retarded children. On the other hand, there was evidence of maintenance during interruption of learning in recognition of verbal labels, in use of public transportation, and in cooking skills of retarded women. Browder et al (in press) also cited several studies in which generalization and maintenance varied across research subjects and circumstances.

The above research indicates that regression and maintenance (and presumably recoupment as well) vary across skills, people, and circumstances. Even though Browder and Lentz (1985) spoke of "regression-prone skills," and even though this is an appealing construct, it is more likely that the notion of "regression-prone" applies to some combination of student, skill/knowledge, instructional setting, and circumstances for application of previous learning. At this point in time, there is little basis for predicting regression/recoupment in terms of people or skills, except for the expectation that the incidence and severity of regression likely increases with the severity of handicap, although not in all cases.

SO WHAT IS THE ANSWER TO...

2. What regression/recoupment takes place? Who or what is most susceptible?

THE ANSWER IS:

A. Regression does take place, for both handicapped and non-handicapped children. In non-handicapped children, we would expect to see regression in problem solving and arithmetic skills more frequently. In handicapped children, we might expect to see regression more frequently among more severely handicapped children. Recoupment presumably takes place, given appropriate circumstances for relearning, but time and resources required are generally unknown.

B. Beyond the above generalization, there is only limited basis for predicting regression/recoupment in terms of children, skills, and/or time. Articulation skills may not be subject to regression, and performance on cognitive test items may be most subject to regression. Recoupment by regular education students and by selected special education students is likely complete by November. At this point in time, it may be best to view regression/recoupment as an extremely individualized phenomenon.

****

3. HOW IS REGRESSION/RECOUPMENT RELATED TO HANDICAP, SEVERITY, AND AGE?

Intuitively speaking, regression/recoupment would appear to be related to a number of factors, presumably including handicap, severity, and age. Unfortunately the research literature provides only limited information for responding to the above question, but it does indicate that regression/recoupment varies across students and circumstances.

Browder and Lentz (1985) and Browder, Lentz, Knoster, and Wilansky (in press) cited a number of studies in which SPH students failed to maintain or generalize skills and a number of studies in which maintenance of skills held for weeks or months, and Kabler, Stephens, and Rinaldi (1983) concluded, after reviewing previous studies, that the amount of regression may vary with individual students and area of content.

Edgar, Spence, and Kenowitz (1977) noted a common belief among special educators that severely handicapped students experience greater regression, but were unable to find supporting research evidence. However, later research completed in Seattle verified this believe. Tilley, Cox, and Stayrook (1986) found that moderately/severely handicapped students experienced greater regression and slower recoupment than did mildly handicapped students.

There has been apparently no research studying the relationship between handicap and regression/recoupment, but

several studies with small samples of handicapped children have found variable patterns of regression/recoupment (recall that the regression/recoupment phenomenon is intrinsically bound to issues of generalization and maintenance). Koegel and Rincover (1977) reported that one of three autistic children failed to generalize behavior to a new setting. Among six male autistic children who were known to have been "generalizers," there was considerable variability in ability to maintain behavior.

Sindelar and Rosenberg (1982) compared five normal children and five severely retarded children on specially developed tasks of discriminant learning. Sindelar and Rosenberg concluded that regression/recoupment was more efficient among non-handicapped children, but perhaps more importantly, results revealed wide variability among handicapped children in regression/recoupment. In a study of the performance of four autistic children on the Peabody picture cards, Handleman and Harris (1984) found that at least some severely handicapped children required ongoing review in order to retain previous learning.

McMahon (1983) studied 26 ESY students in a six-week summer program and reported that students regressed more on interactive skills (impulse control, basic communication, peer interaction, and interaction with adults) than on other areas of self-sufficiency (muscular control, toileting, feeding, dressing, mobility, and hygiene). Of course, regression was present on interactive skills, as well.

In an extensive study of regression/recoupment patterns of handicapped and regular education students, Tilley, Cox, and Stayrook (1986) found that moderately/severely handicapped students experienced greater regression than mildly handicapped students. However, recoupment was slower only for cognitive test items. For language, self-help, and motor items, recoupment rates of moderately/severely handicapped students were comparable to those of regular education students. Most interestingly, these researchers also found that communication disordered students did not experience any noteworthy regression in articulation skills.

The literature review found no studies that had investigated the relationship of age to regression/recoupment. Many of the studies reviewed sampled across k-12 grade levels, but the bulk of work likely sampled elementary age children.

SO WHAT IS THE ANSWER TO...

3. How is regression/recoupment related to handicap, severity, and age?

THE ANSWER IS:

A. We don't know about the relationship between age and regression/recoupment.

B. Regression/recoupment is almost certainly related to severity of handicap, but the exact parameters of that relationship are largely unknown. Generally speaking, there is some basis for expecting more severely handicapped children to experience greater regression, but one should also expect numerous exceptions to this generalization. The exceptions are likely related to area of content and personal/environmental factors, about which little is known.

C. Little is known about kind of handicap and regression/recoupment. There is some evidence that articulation skills of communication disordered students are not subject to regression, while all or most cognitive knowledges/skills are probably subject to regression, regardless of handicapping or non-handicapping conditions. The regression/recoupment phenomenon may be linked strongly to the type of knowledge/skill learned, but perhaps may be almost hopelessly tied to personal idiosyncrasies of learners.

****

4. HOW IS RECOUPMENT RELATED TO REGRESSION? DOES THIS RELATIONSHIP DEPEND ON HANDICAP, SEVERITY, AND/OR AGE?

The first of the above two questions is somewhat curious, since the answer may be more of a logical/philosophical task than an empirical research task. At first blush, one could reason that regression is a necessary, but not sufficient, condition for recoupment. Without regression, there obviously cannot be recoupment, since nothing was lost, and, on the other hand, recoupment may not always occur (at least within the confines of published research studies). Sindelar and Rosenberg (1982) reported that with sampled severely retarded children, recoupment did not always take place, and one autistic child studied by Koegel and Rincover (1977) failed to generalize behavior to a new setting, thereby negating the possibility of recoupment.

The relationship of recoupment to regression would also involve rates of regression/recoupment. Presumably, the rate of recoupment might vary according to the rate of regression, but it may be a long time before research provides answers to such questions.

SO WHAT IS THE ANSWER TO...

4. How is recoupment related to regression? Does this relationship depend on handicap, severity, and/or age?

THE ANSWER IS:

A. The obvious relationship is that, by definition, recoupment cannot exist without regression, and there is some very limited research basis which suggests that recoupment may not always take place. Beyond these rather simplistic principles, there is no research basis for more detailed answers to these questions.

****

5. IS REGRESSION/RECOUPMENT THE SAME FOR THE HANDICAPPED CHILD AS IT IS FOR THE REGULAR CHILD?

Research completed in Seattle public schools (Tilley, Cox, and Stayrook, 1986) clearly demonstrated that regular children experience regression/recoupment in cognitive areas (reading and math) and that handicapped children experience regression/recoupment in other areas in addition to cognitive areas. This research also found that regression/recoupment for some handicapped children was the same as for regular children, depending on the handicapping condition and the material learned.

The major difference, of course, between handicapped and non-handicapped children in terms of regression/recoupment is that the handicapped child is more likely to experience greater regression and slower recoupment, but in most cases, there may be little or no differences between the two groups. In fact, Tilley et al (1986) reported that mildly handicapped students regressed less than did regular students on cognitive test items, but of course the end-of-year achievement level of handicapped students was lower than regular students.

Another difference between regression/recoupment of handicapped and non-handicapped children is likely that non-handicapped children always experience recoupment, but handicapped children may not always recoup lost learning. In a study of severely retarded students, Sindelar and Rosenberg (1982) found that in some cases, sampled students did not recoup discriminant learning tasks (at least within the confines of the study).

For a more complete understanding of this question, one should refer to the discussions for questions one, two, and three in this review. The variety in not only issues studied but also in outcomes suggests that one other difference may well be that regression/recoupment in handicapped children is highly individualized, but perhaps less so in non-handicapped children.

SO WHAT IS THE ANSWER TO...

5. Is regression/recoupment the same for the handicapped child as it is for the regular child?

THE ANSWER IS:

A. Basically yes, but for some handicapped children, it may differ greatly depending on the child, extent of handicap, area of learning, circumstances of application, and probably other unknown factors.

****

6. DO FAMILY/ENVIRONMENTAL FACTORS AFFECT REGRESSION/RECOUPMENT?

Very few research studies, perhaps only one or two, have included or even addressed family factors. However, researchers have been aware of the potential impact of family factors on regression/recoupment. Bahling (1981) considered abilities of families to assist with instruction when identifying children for possible ESY service, and Browder, Lentz, Knoster, and Wilansky (in press) recommended consideration of family stress levels when determining ESY eligibility.

Research cited by Browder et al (1986) indicated that environmental factors affect skill generalization and maintenance. Students were seen to maintain skills under a variety of conditions including remote supervision, peer and parent involvement, response opportunities, and self-management procedures. Outcomes from applied behavior studies have also shown that environmental factors influence generalization and maintenance by autistic children (Koegel and Rincover, 1977).

SO WHAT IS THE ANSWER TO...

6. Do family/environmental factors affect regression/recoupment?

THE ANSWER IS:

A. Intuitively speaking, one would expect family factors to affect regression/recoupment, but there have been few or no attempts to research the effect of family factors. Environmental factors most likely do affect regression/recoupment, but the research base is too limited to provide any general prediction, or perhaps even much prediction at all, of their effect.

****

7. WHO SHOULD BE CANDIDATES FOR ESY SERVICE? WHO SHOULD RECEIVE ESY SERVICE?

The research literature relevant to these questions has been discussed extensively in previous questions. One should refer especially to questions two, three, and six for discussion of research findings.

Intuitively speaking, a candidate for ESY service should be any handicapped student who might experience greater regression and slower recoupment than regular education students. The research literature provides little basis for determination of how much greater and slower. Researchers in the Seattle public schools (Tilley, Cox, and Stayrook, 1986) determined that this regression/recoupment should be statistically significant ($p<.05$), which operationally meant any observed regression/recoupment large enough to be almost certainly different from regular students. Legal rulings about this question have focused on the notion that the extent of regression/recoupment should not impair the child's chances of attaining self-sufficiency (Leonard, 1981).

Recipients of ESY service should obviously be those whose regression/recoupment is such that resulting educational impairments will violate accepted norms (as defined and accepted by whatever policies). Research reported by Tilley et al (1986) provides one method for identifying handicapped students whose regression/recoupment is "worse" than regular students, but there is apparently no research basis for determining "how much worse" would result in impaired attainment of self-sufficiency. Interestingly, however, existing research suggests that the actual numbers of handicapped students so affected would likely be relatively small.

Reviewed research provided some evidence of the incidence or numbers of children who receive ESY service. Edgar, Spence, and Kenowitz (1977) found that in 18 ESY programs in the state of Washington, the number of children served ranged from 1 to 45. Bahling (1981) reported that nine percent of the parents in one Pennsylvania intermediate unit requested review for ESY service, and about one-half of these received ESY service (an overall service rate of five percent). Tilley et al (1986) found that using cutoff scores based on 95% confidence intervals, about 10-14 percent of moderately/severely handicapped children and up to six percent of other handicap groups qualified for ESY service.

Again, for discussion of research literature relevant to the above questions, refer to previous questions two, three, and six.

SO WHAT IS THE ANSWER TO...

7. Who should be candidates for ESY service? Who should receive ESY service?

THE ANSWER IS:

A. Ultimately, policy must determine the answer to these questions. Research tells us that some handicapped children in some circumstances experience regression/recoupment that is "worse" than that experienced by regular education students. Identification of those specific handicapped children will require direct, ongoing assessment of a highly individualized nature.

****

8. UNDER WHAT CONDITIONS IS ESY SERVICE NEEDED?

Extended school year service would be needed whenever a student would experience "unacceptable" regression/recoupment (refer to question seven). Research conducted by Koegel and Rincover (1977) and numerous studies cited by Browder and Lentz (1985) and by Browder, Lentz, Knoster, and Wilansky (in press) indicate that generalization and maintenance fail to take place under a variety of conditions and circumstances, thereby giving rise to regression. Sindelar and Rosenberg (1982) found that regression/recoupment varied greatly among severely retarded children and that in some cases, recoupment may not take place. Other studies have indicated that regression/recoupment likely varies across content area and tasks, as well as environmental factors, and one should refer to discussions of research reviewed in the foregoing questions.

SO WHAT IS THE ANSWER TO...

8. Under what conditions is ESY service needed?

A. It is probably best to view regression/recoupment as a highly individualized phenomenon. Factors that could indicate a need for ESY are handicap severity, learned material (e.g., cognitive test items may be most susceptible to regression), potential for generalization and maintenance, medical conditions (see question ten), and possibly family circumstances.

****

9. HOW CAN WE MAKE THE ARD PROCESS LESS SUBJECTIVE?

Research shows that to date the process of determining ESY eligibility has been fairly subjective, at least in Pennsylvania. Larsen, Goodman, and Glean (1981) reported that ESY eligibility of about 37 percent of 2,089 children initially declared eligible was suspect. This was attributed to at least the absence of

definitive eligibility criteria and court imposed timelines. Unfortunately, research conducted several years later in Pennsylvania still found little evidence of definitive eligibility criteria. Browder, Lentz, Knoster, and Wilansky (in press) studied student folders of ESY and non-ESY students and found that the two groups were remarkably similar. The only significant differences were age, medical problems, and technical quality of IEP objectives. The ESY students were, on the average, about two years younger than the non-ESY students, and the ESY students had more medically diagnosed health impairments. The IEP objectives of the ESY students were also less well written.

In their review of 105 randomly selected ESY student folders, Browder et al (in press) failed to find one report of direct measurement of skill regression, even though established policy for ESY eligibility specified documentation of skill regression. This research led Browder et al to conclude that ESY eligibility criteria were esoteric (i.e., known to only a few), and these workers called for development of explicit ESY eligibility criteria based on "direct, ongoing assessment of measurable IEP objectives."

Certainly direct, ongoing assessment would be one of the best ways to reduce subjectivity in the process of determining ESY eligibility. Numerous workers (see question one) have called for improved data collection relative to the regression/recoupment phenomenon. Data collection checklists used by selected researchers could also contribute to improved measurements (Joiner, Lodato, and Stillman, 1972; Spivak and Kosky, 1972; Browder et al, in press).

Development of definitive (and easily understood) ESY eligibility criteria would appear to be a basic prerequisite for reduction of ARD subjectivity. Research clearly indicates (see questions one and two) that such criteria should include direct, ongoing assessment, which of course is the hard part. It is also likely that our understanding of assessment will have to be broadened to embrace constructs not usually considered. Browder and Lentz (1985) talked about developing "parameters of service" to describe instructional environments associated with targeted skills. These parameters should presumably include instructional methods/materials, time, opportunities for generalization, and so forth.

SO WHAT IS THE ANSWER TO...

9. How can we make the ARD process less subjective?

THE ANSWER IS:

A. Get some definitive and easily understood ESY eligibility criteria and conduct direct, ongoing assessment. Data collection should focus on IEP objectives, use a variety of

sources and methods, and take place with adequate frequency. Document data collection and application of outcomes to eligibility criteria.

****

10. WHAT PROCEDURES CAN BE USED BY ARD PERSONNEL TO MAKE ESY SERVICE DETERMINATION UNDERSTANDABLE AND STRAIGHT FORWARD?

Reviewed research literature did not specifically address the above topic, but of course selected features and outcomes spoke to the question. Some recommended procedures were likely not suitable for most field applications, for example, the simplified time-series analysis recommended by Tryon (1982), but other single-subject research strategies may have application (Kratochwill, 1978). Most could not replicate the work done in Seattle (Tilley, Cox, and Stayrook, 1986), but their procedures, or at least selected procedures, could generalize to other settings.

Actual delineation and/or development of procedures is beyond the scope of this review. However, information contained in forgoing discussions of reviewed literature should be very helpful in developing such procedures.

SO WHAT IS THE ANSWER TO...

10. What procedures can be used by ARD personnel to make ESY service determination understandable and straight forward?

THE ANSWER IS:

A. Basically the same as for question nine, but with the recommendation to select data collection procedures that are manageable.

****

11. WHAT ALTERNATIVE PROGRAMMATIC APPROACHES ARE VALID FOR ESY SERVICE?

While center-based summer programs have been fairly typical of ESY services (Joiner and Lodato, 1972; Spivak and Kosky, 1972; McMahon, 1983; Sobsey, 1985), Browder and Lentz (1985) called for a range of options, since service needs may vary across children. Browder and Lentz noted that some students may require only home consultation, and others may require summer instruction by the school-year teacher in the school environment.

Bahling (1981) studied 58 ESY children served in a three-county area of Pennsylvania and found that service options included itinerant instruction (three times per week), center-based day camp, residential placement, and a private school summer program. Support services included speech, PT, adaptive physical education, and transportation. Reith, Polsgrove, and Semmel (1979) called for organization of programs to maximize instructional time, and Sobsey (1985) suggested that summer programs be organized to make maximum use of instructional time as well as focusing on maintenance and providing opportunity for generalization of instruction.

Other writers have suggested that regular school year programs should focus more directly on maintenance and generalization of learning. Leonard (1981) cited the need to emphasize and directly program for generalization of skills by SPH children, and Larsen, Goodman, and Glean (1981) stated that the need for ESY services could be reduced through the inclusion of maintenance activities in skill acquisition taught during the regular year. Larsen et al also included emphasis on functional skills in the regular school year and active involvement of parents in maintenance activities.

Schedgick and Deschapelles (1978) recommended that IEPs directly target skill generalization. These workers felt that without instructional focus on the generalization process, SPH students would experience very little generalization of skills. They recommended the systematic manipulation of certain factors (time between initial acquisition and retention, family involvement, places of training, procedures used in concept presentation, materials, and teaching personnel) in order to promote generalization.

SO WHAT IS THE ANSWER TO...

11. What alternative programmatic approaches are valid for ESY service?

THE ANSWER IS:

A. ESY services can certainly be more than just a center-based summer day program, and any of the regular school year program options are likely valid for ESY services, even though the research literature provides little documentation of ESY delivery systems.

B. ESY programming, however, should likely involve modification of regular school year instruction in order to maximize the potential for generalization and maintenance during the summer interruption of instruction.

****

LIST OF REFERENCES

CHRONOLOGICAL LISTING OF PRIMARY SOURCES:

JOINER, L.M., LODATO, F.J., & STILLMAN, M. MENTALLY RETARDED TRAINABLE CHILDREN AND EDUCABLE PUPILS. FINAL REPORT. NEW YORK: TEACHING AND LEARNING RESEARCH CORP, 1972. (ED 079 882)

SPIVAK, F. & KOSKY, E. SOCIALLY MALADJUSTED AND EMOTIONALLY DISTURBED CHILDREN. SUMMER 1972. FINAL REPORT. NEW YORK: TEACHING AND LEARNING RESEARCH CORP, 1972. (ED 085 957)

RICHMOND, M.J. EFFECTS OF EXTENDED SCHOOL YEAR OPERATIONS. EDUCATION, 97(4), 392-98, 1976.

KOEGEL, R.L. & RINCOVER, A. RESEARCH ON THE DIFFERENCE BETWEEN GENERALIZATION AND MAINTENANCE IN EXTRA-THERAPY RESPONDING. JOURNAL OF APPLIED BEHAVIOR ANALYSIS, 10(1), 1-12, 1977.

EDGAR, E., SPENCE, W.M., & KENOWITZ, L.A. EXTENDED SCHOOL YEAR FOR THE HANDICAPPED: IS IT WORKING? THE JOURNAL OF SPECIAL EDUCATION, 11(4),441-47, 1977.

RICHMOND, M.J. RICHMOND'S RESPONSE TO COMMENT BY KEITH BAKER AND OTHERS. EDUCATION 99(2), 225-228, 1978.

BANTA, T.W, TRADITION AGAIN THWARTS THE EXPANDED SCHOOL YEAR. PHI DELTA KAPPAN, 59(7), 491, 1978.

RIETH, H.J., POLSGROVE, L., & SEMMEL, M.I. RELATIONSHIP BETWEEN INSTRUCTIONAL TIME AND ACADEMIC ACHIEVEMENT: IMPLICATIONS FOR RESEARCH AND PRACTICE. EDUCATION UNLIMITED, 1(6), 53-56, 1979.

BAHLING, E. EXTENDED SCHOOL YEAR PROGRAM, INTERMEDIATE UNIT NO. 5. JUNE-AUGUST 1980, PAPER PRESENTED AT THE ANNUAL INTERNATIONAL CONVENTION OF THE COUNCIL FOR EXCEPTIONAL CHILDREN, NEW YORK, APRIL, 1981. (ED 208 609)

LARSEN, L., GOODMAN, L., & GLEAN, R. ISSUES IN THE IMPLEMENTATION OF EXTENDED SCHOOL YEAR PROGRAMS FOR HANDICAPPED STUDENTS. EXCEPTIONAL CHILDREN, 47(4), 256-63, 1981.

LEONARD, J. 180 DAY BARRIER: ISSUES AND CONCERNS. EXCEPTIONAL CHILDREN, 47(4), 246-53, 1981.

MAKUCH, G.J. YEAR-ROUND SPECIAL EDUCATION AND RELATED SERVICES: A STATE DIRECTOR'S PERSPECTIVE. EXCEPTIONAL CHILDREN, 47(4), 272-74, 1981.

PRIMARY SOURCES (CONT.)

SINDELAR, P.T. & ROSENBERG, M.S. RELEARNING BY NORMAL AND RETARDED CHILDREN FOLLOWING A THREE-MONTH LAPSE IN INSTRUCTION, PAPER PRESENTED AT THE ANNUAL INTERNATIONAL CONVENTION OF THE COUNCIL FOR EXCEPTIONAL CHILDREN, HOUSTON, APRIL, 1982. (ED 242 165)

TRYON, W.W. A SIED TIME-SERIES ANALYSIS FOR EVALUATING TREATMENT INTERVENTIONS. JOURNAL OF APPLIED BEHAVIOR ANALYSIS, 15(3), 423-29, 1982.

KABLER, M.L., STEPHENS, T.M., & RINALDI, R.T. EXTENDED SCHOOL YEAR FOR THE HANDICAPPED: LEGAL REQUIREMENTS, EDUCATIONAL EFFICACY, AND ADMINISTRATIVE ISSUES. THE JOURNAL OF SPECIAL EDUCATION, 17(1), 105-13, 1983.

MCMAHON, J. EXTENDED SCHOOL YEAR PROGRAMS. EXCEPTIONAL CHILDREN, 49(5), 457-60, 1983.

ELLIS, T.I. EXTENDING THE SCHOOL YEAR AND DAY. ERIC CLEARINGHOUSE ON EDUCATIONAL MANAGEMENT: ERIC DIGEST, NUMBER SEVEN, EUGENE, OR, ERIC CLEARINGHOUSE ON EDUCATIONAL MANAGEMENT, 1984. (ED 259 450)

HANDLEMAN, J.S. & HARRIS, S.L. CAN SUMMER VACATION BE DETRIMENTAL TO LEARNING? AN EMPIRICAL LOOK. THE EXCEPTIONAL CHILD, 31(2), 151-57, 1984.

MAZZARELLA, J.A. LONGER DAY LONGER YEAR: WILL THEY MAKE A DIFFERENCE? PRINCIPAL, 63(5). 14-20, 1984.

BROWDER, D.M. & LENTZ, F.E. EXTENDED SCHOOL YEAR SERVICES: FROM LITIGATION TO ASSESSMENT AND EVALUATION. SCHOOL PSYCHOLOGY REVIEW, 14(2), 188-95, 1985.

BECKER, H., SCHUR, S., PAOLETTI-SCHELP, M., & HAMMER, E. FUNCTIONAL SKILLS SCREENING INVENTORY. USER'S GUIDE. PRINT EDITION. AUSTIN, TX: FUNCTIONAL RESOURCES ENTERPRISES, INC., 1985.

SOBSEY, D. DEVELOPING AND IMPLEMENTING SUMMER-SCHOOL PROGRAMS FOR STUDENTS WITH SEVERE HANDICAPS, PAPER PRESENTED AT THE ANNUAL CONVENTION OF THE COUNCIL FOR EXCEPTIONAL CHILDREN, ANAHEIM, CA, APRIL, 1985. (ED 261 477)

CROUCH, R.C. EXTENDED YEAR PROGRAMMING: A POLICY ANALYSIS. EDUCATIONAL EVALUATION AND POLICY ANALYSIS, 8(2), 215-25, 1986.

PITTMAN, R., COX, R., & BURCHFIEL, G. THE EXTENDED SCHOOL YEAR: IMPLICATIONS FOR STUDENT ACHIEVEMENT. JOURNAL OF EXPERIMENTAL EDUCATION, 54(4), 211-15, 1986.

PRIMARY SOURCES (CONT.)

TILLEY, R.K., COX, L.S., & STAYROOK, N. AN EXTENDED SCHOOL YEAR VALIDATION STUDY. REPORT NO. 86-2. SEATTLE, WA: SEATTLE PUBLIC SCHOOLS, 1986.

BROWDER, D.M., LENTZ, F.E., KNOSTER, T.P., & WILANSKY, C. DETERMINING EXTENDED SCHOOL YEAR ELIGIBILITY: EXPLICIT OR ESOTERIC CRITERIA? JASH, IN PRESS.

CHRONOLOGICAL LISTING OF SECONDARY SOURCES:

BREUCHNER, L.J. AND DISTAD, H.W. THE EFFEECT OF SUMMER VACATION ON THE READING ABILITY OF FIRST GRADE CHILDREN. ELEMENTARY SCHOOL JOURNAL, 24, 698-707, 1924. (CITED BY KABLER, STEPHENS, & RINALDI, 1983)

BREUNE, E. EFFECT OF SUMMER VACATION ON THE ACHIEVEMENT OF PUPILS IN THE 4TH, 5TH, AND 6TH GRADES. EDUCATIONAL RESEARCH, 18, 309-314, 1928. (CITED BY KABLER, STEPHENS, & RINALDI, 1983)

SCHREPEL, M. AND LASLETT, H.R. ON THE LOSS OF KNOWLEDGE BY JUNIOR HIGH SCHOOL PUPILS OVER SUMMER VACATION. EDUCATIONAL PSYCHOLOGY, 27, 299-303, 1936. (CITED BY KABLER, STEPHENS, & RINALDI, 1983)

COOK, R.C. VACATION RETENTION OF FUNDAMENTALS BY PRIMARY GRADE PUPILS. ELEMENTARY SCHOOL JOURNAL, 43, 214-16, 1942. (CITED BY KABLER, STEPHENS, & RINALDI, 1983)

PARSLEY, K.M. AND POWELL, M. ACHIEVEMENT GAINS OR LOSSES DURING THE ACADEMIC YEAR AND OVER THE SUMMER VACATION PERIOD: A STUDY OF TREND IN ACHIEVEMENT BY SEX AND GRADE LEVEL AMONG STUDENTS OF AVERAGE INTELLIGENCE. GENTIC PSYCHOLOGY MONOGRAPHS, 285-342, 1962. (CITED BY KABLER, STEPHENS, & RINALDI, 1983)

SOAR, R.S. AND SOAR, R.M. PUPIL SUBJECT MATTER GROWTH DURING SUMMER VACATION. EDUCATIONAL LEADERSHIP (RESEARCH SUPPLEMENT), 2(4), 577-87, 1969. (CITED BY KABLER, STEPHENS, & RINALDI, 1983)

STALLINGS, J.A. IMPLEMENTATION AND CHILD EFFECTS OF TEACHING PRACTICES IN FOLLOW-THROUGH CLASSROOMS. MONOGRAPHS OF THE SOCIETY FOR RESEARCH IN CHILD DEVELOPMENT, 40, 1975. (CITED BY REITH, POLSGROVE, & SEMMEL, 1979, P.55)
SECONDARY SOURCES (CONT.)

SAILOR, W. & HARING. N.G. SOME CURRENT DIRECTIONS IN EDUCATION OF THE SEVERELY/MULTIPLY IMPAIRED. AAESPH REVIEW, 2, 3-23, 1977. (CITED BY LARSEN, GOODMAN, & GLEAN, 1981, P. 261)

SECONDARY SOURCES (CONT.)

KRATOCHWILL, T.R. SINGLE SUBJECT RESEARCH: STRATEGIES FOR EVALUATING CHANGE. NEW YORK: ACADEMIC PRESS, 1978.

SCHEDGICK, B. & DESCHAPELLES, A. A CURRICULUM FOR THE SEVERELY HANDICAPPED: FOCUS ON THE GENERALIZATION PROCESS. EDUCATION AND TRAINING OF THE MENTALLY RETARDED, 13(4), 389-93, 1978.

STAINBACK, W.C. ET AL. DEVELOPING POLICIES FOR EXTENDED YEAR PROGRAMS. JOURNAL OF THE ASSOCIATION FOR PEOPLE WITH SEVERE HANDICAPS. 8(3), 5-9, 1983. (SOURCE: ERIC abstract)

ALPER, S. & NOIE, D.R. EXTENDED SCHOOL YEAR SERVICES FOR STUDENTS WITH SEVERE HANDICAPS: A NATIONAL SURVEY. JOURNAL OF THE ASSOCIATION FOR PERSONS WITH SEVERE HANDICAPS, 12(1), 61-66, 1987. (SOURCE: ERIC abstract)